

SEMICONDUCTOR DEVICE FOR POWER CONTROL

Abstract of the Disclosure

A semiconductor device for power control includes a substrate made of aluminum. Lands of copper are formed on the substrate. Semiconductor chips, such as FETs, are mounted on the lands. The semiconductor chips are joined with the lands only through solder layers. A synthetic resin, which includes epoxide, covers the lands, the solder layers and the semiconductor chips on the substrate. Preferably, a coefficient of expansion of the synthetic resin is generally less than a coefficient of expansion of the substrate or a coefficient of expansion of the lands. Each semiconductor chip defines at least two corners positioned generally opposite to each other. Each land defines at least two corners disposed in proximity to the corners of the semiconductor chip. The corners of the land generally confine the corners of the semiconductor chip therein.

H:\DOCS\YAMAHA\FY17451US0APP.DOC:as
111901